New Bus for London
Reactive Design Q&A

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Appointment of Heatherwick Studio

[Refer to TfL press office for any queries on this subject]

Cost:

[Refer to TfL press office for any queries on this subject]

Design

Q: Why did you appoint Wrightbus as the manufacturer?

A: TfL went through a competitive process and the final decision was based on a number of factors including the potential for environmental benefits, the level of innovation, and a combination of lowest unit production price and the whole life cost of the vehicle (considering fuel costs, maintenance etc.). The new bus will incorporate the most innovative and latest hybrid technology and will be even more environmentally friendly than the hybrid buses currently operating in London.

Q: What are the next steps?
A: A full-size static mock up of the bus will be produced later this year. A prototype of the new bus should be on the road in 2011, with production expected to begin in 2012.

Q: How will passengers board/alight?
A: The new bus will have three entrances. To allow for quick and easy boarding/alighting it is proposed all doors including the open platform are used for boarding and alighting. All entrances will be fitted with Oyster readers.

Q: How many seats will the buses have?
A: The bus will have a capacity of 87. There will be 22 seats on the lower deck (including 4 priority seats and 4-6 preferential seats for passengers with restricted mobility) and one wheelchair bay. There will be 40 seats on the upper deck and space for 25 standees on the lower deck. Current double deck buses have a similar capacity.

Q: Won't having two staircases reduce capacity?

A: No. The manufacturer has been able to put forward a design with two staircases which still has space for a wheelchair user and a capacity for a further 87 passengers. The buses will be slightly longer than a standard double deck bus.

The staircases will enable easier and quicker access to and from the upper deck. The rear staircase will have a mid landing section which will allow passengers to pass if necessary.

Q: Will the new bus use hybrid technology?
A: Yes. The new bus will use the latest hybrid technology. The new bus will also have new electric motors. This enables a significant weight saving over a conventional drive train as well as reducing the space required for other electrical and mechanical components.

Q: What are the environmental credentials of the new bus?
A: It is expected the New Bus for London will have a fuel consumption of approximately 28 litres per 100km (equal to 10mpg). This is nearly 40% better than a current conventional diesel double deck bus and some 15% better than existing hybrid double deckers.

The corresponding CO2 emissions will be around 750g/km per bus. Current conventional diesel double deckers emit approximately 1200g per km per bus.

- Air quality emissions will be reduced as follows:
  - NOX = 40% reduction over conventional diesel buses
  - PM = 33% reduction over conventional diesel buses
- Road side drive-by noise levels will improve on the current legal minimum by up to 4dB(A) - which is a reduction of more than half the noise energy.

Q: How will you make sure accessibility issues get considered?
A: TfL has comprehensive technical guidelines and stringent standards for accessibility on all of its services. All London buses are wheelchair accessible, with the exception of the Routemasters which operate on two heritage routes.

Wrightbus will have to meet TfL's minimum specifications on accessibility in addition to those required by regulation when putting together the final design. These include things such as a wheelchair ramp on the central door, a minimum 1600mm long wheelchair bay, priority seating (with space for assistance dogs). The new bus will have a completely step-free low floor throughout the lower deck making it convenient and accessible for all passengers.

Name

Q: What are you going to call this new bus?
A: We are currently considering options on what to call the bus, but felt it was important to have the designs first.

Competition

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Q: How much did the competition cost?

A: The competition ran in 2008 with 700 entries and the winners announced in December 2008.

The competition cost around £140,000, this figure includes the prize money for winning designs, which came to about £88,000.

Q: Will the new bus look like the winning designs from the project?
A: When working on the final design of the new bus we did take into account the information from the public competition. However, we worked closely with Wrightbus and Heatherwick Studio to produce a design which has a unique styling concept.

We have used Wrightbus' industry knowledge and Heatherwick Studio's design expertise to come up with a design of a bus that will be iconic in London.

Q: Why didn't TfL design its own bus?
A: TfL is not a bus designer. It is important that the new bus is reliable, robust, practical and economic in operation which is why it is vital for the manufacturer to be involved in the final design. We also drafted in noted design consultants Heatherwick Studio to provide further styling guidance to ensure the finally design of the bus could be an icon for London and meet Londoners needs.

The competition played a valuable role in the design of the new bus as it allowed TfL to harvest ideas and concepts from individuals and organisations that might not otherwise have found their way into a bus design.

Q: Why didn't you just build one of the winning entries?
A: The competition was always designed to enable us to harvest ideas to take forward to a bus manufacturer. The competition helped us to create a concept for the design, and then invite manufacturers to add the detail to make it a buildable and workable solution.

Q: What happened to the winners' intellectual property rights?
A: The intellectual property rights for the winning designs in the Design category have been assigned to TfL and the winning designs in the Imagine category have been licensed to TfL. TfL requires the intellectual property rights in the designs in order for them to be used by the bus manufacturers in developing the final design for London's new bus.

<u>Platform/second crew member</u>

Q: Will the platform be open at all times?
A: Although the open platform will be a key feature, there will be a facility to allow it to be closed by a door at certain times. This would allow the bus to be operated by the driver only yet still retain the versatility of three entrances and it would enable the bus to be easily secured at.

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Q: Is there any legislation which prevents you from having an open platform?
A: No - there is no legislation that prohibits open platforms. It is anticipated that the design and construction of the new vehicles will be certified under the new European vehicle regulators which came into force in April 2010. The process of certification can only start to take place when a road-worthy vehicle has been built and is made available for testing, this is likely to be in mid 2011.

We have been in discussions with the Department for Transport (DfT) on certification matters and will continue to consult and inform them during the design process.

Q: By closing off the platform at certain times doesn't this undermine having the open platform?
A: No – this will provide us with more versatility. The bus will always have three entrances whether or not the real platform is 'open', enabling the bus to be operated with just the bus driver at certain times of the day such as evenings and weekends.

Q: What will the role of the second crew member be?
A: The role of the second crew member will be primarily to ensure the safe boarding and alighting of passengers using the open platform, as well as providing information and assistance to passengers. They will also ensure that passengers have swiped their Oyster cards correctly and deal with any fare queries.

The central London bus network is cashless, and outside this area almost 99% of fares are collected through pre-paid ticketing.

Q: Will the second crew member be a PCSO?
A: We expect to have the first prototypes of the new bus for London on the streets in 2011, going into full production from 2012. Our plans for staffing these services will be confirmed nearer the time.

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